

What is claimed is:

1. A fan arrangement of an internal combustion engine including an engine of a portable handheld work apparatus, the fan arrangement comprising:

5 a fan wheel for acting on air to move said air in an air flow defining a flow direction (S);

a fan housing at least partially surrounding said fan wheel;

10 a take-out opening disposed in the region of said air flow to branch off a component of said air flow as a combustion air flow for said internal combustion engine;

said take-out opening being disposed outside of said fan wheel in radial direction;

15 said take-out opening being configured as a window having a forward edge viewed in said flow direction (S) and said forward edge having a small width (b); and,

said window having a rearward edge and said window having a width and a depth which both increase toward said rearward edge.

2. The fan arrangement of claim 1, wherein said window is delimited by two ramps diverging in said flow direction (S).

3. The fan arrangement of claim 2, wherein said ramps have the form of two arcs.

4. The fan arrangement of claim 1, further comprising a housing element disposed next to said fan wheel and said housing element having a side facing away from said fan wheel;

and, said window being configured in said housing element and
5 being arranged on said side facing away from said fan wheel.

5. The fan arrangement of claim 4, wherein said housing element includes a plate extending virtually tangentially to said fan wheel and said window being formed in said plate.

6. The fan arrangement of claim 5, wherein said plate has a forward end viewed in said flow direction and said forward edge of said window is at a distance (A) to said forward end of said plate.

7. The fan arrangement of claim 6, wherein said rearward edge of said window is configured as a lip partitioning said air flow and said window has a width (B) at said lip which is 5 times to 12 times said small width (b) at said forward edge.

8. The fan arrangement of claim 4, wherein said housing element has a combustion air channel formed therein and extending from said window.

9. The fan arrangement of claim 8, wherein said engine has a crankcase and said combustion air channel is configured to be flat and extend along said crankcase.

10. The fan arrangement of claim 4, wherein said fan housing includes a housing cover and said housing element is arranged on said housing cover so as to be mountable in common therewith.

11. The fan arrangement of claim 4, further comprising an aerodynamically formed guide ramp disposed forward of said housing element viewed in said flow direction (S) and said guide ramp rising in the axial direction of said fan wheel.

12. The fan arrangement of claim 11, wherein said engine includes an ignition coil projecting into said fan housing and said guide ramp being mounted directly forward of said ignition coil viewed in said flow direction (S) and said guide ramp
5 being configured as a flow shroud for said ignition coil.

13. The fan arrangement of claim 12, wherein said guide ramp is a first guide ramp and wherein said fan arrangement further comprises a second guide ramp directly after said ignition coil viewed in said flow direction (S).

14. The fan arrangement of claim 13, said housing element being mounted directly after said ignition coil in a flow cross section narrowed in correspondence to said first guide ramp.

15. The fan arrangement of claim 13, wherein said second guide ramp is configured as one piece with said housing element.

16. The fan arrangement of claim 1, wherein said fan housing has a spiral shape.